

INTERNATIONAL SULPHUR, INC.

Office: PO Box 611, Mt. Pleasant, TX 75456-0611 ☎ phone (800) 828-7857 ☎ fax (903) 577-5540

Plant: Interstate 30 West, Mt. Pleasant Texas 75455

EMERGENCY ASSISTANCE:

CHEMTREC (800) 424-9300 (24 Hours)

SECTION 1 CHEMICAL IDENTITY**Trade Name & Synonyms:** Yellow Jacket Flowable Sulphur, EM 70**Chemical Name:** Sulfur**Family Name:** Element - Sulfur**Chemical Formula:** S₈**Appearance:** Creamy pale yellow liquid**CAS Number:** 7704-34-9**Hazardous Ingredient:** Sulphur**% by Weight:** Flowable Sulfur 53%, Fluid Sulfur 70%**SECTION 2 PHYSICAL DATA****Appearance:** Creamy pale yellow liquid**Odor:** Sulphur odor, or faint odor of rotten eggs**Purity:** 52%, 70%**Formula:** S₈ (Rhombic or monoclinic)**Vapor Pressure:** Solid: 0.0001 atm Liquid: 0.0014 atm**Solubility In Water:** Disperses to form an emulsion**Specific Gravity:** 1.30, 1.5**Boiling Point:** Not available**Freezing/Melting Point:** Not applicable**Bulk Density:** 11.4 lbs. / gallon, 12.9 / gallon**SECTION 3 FIRE AND EXPLOSION DATA****Flashpoint:** 405°F (207.2°C)**Flammable Limits:** LEL: 35 g/m³ UEL: 1400 g/m³**Auto-ignition Temperature:** Not available**Extinguishing Media:** Water fog, spray, or regular foam. Do not use a direct water stream.**Burning Sulfur:** Decomposes into TOXIC sulfur oxide gasses such as: **Sulfur dioxide** and **Hydrogen sulfide**.**☛ PRIMARY HAZARD:**

Flowable sulphur is not a fire or explosion hazard; however, flowable sulphur that is allowed to dry and is then pulverized should be treated as sulphur dust. Sulphur dust suspended in air **ignites** easily, and can cause an **explosion** in confined areas. May be ignited by friction, static electricity, heat, sparks, or flames. Toxic gases will form upon combustion. Bulk/solid forms burn only at moderate rate, whereas dust burns with explosive violence.

☛ FIRE:

Wear full-faced, self-contained breathing apparatus and full protective clothing. **Use a water fog** to extinguish fire. Do not use solid streams of water; which could create sulfur dust clouds and cause an explosion or move burning sulfur to adjacent areas. **Fire will rekindle** until mass is cooled below 310°F (154°C). Cool surrounding areas with water fog to prevent re-igniting. Cool containers, tank cars, or trailer loads with flooding quantities of water until well after fire is out. **Evacuate** nonessential personnel from the fire area. If large fire, evacuate people downwind from fire. Isolate for ½ mile in all directions; consider evacuation for ½ mile in all directions. **Prevent human exposure** to smoke, fumes, or products of combustion (sulfur oxide gases). **Firemen exposed** to contaminated smoke should be immediately relieved and checked for symptoms of exposure to toxic gasses. **Seek medical attention immediately!** This should not be mistaken for heat exhaustion or smoke inhalation. These are extremely irritating to the respiratory tract and may cause breathing difficulty and pulmonary edema. Symptoms may be delayed several hours or longer depending upon exposure.

HAZARD RATING

0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme

ACUTE HEALTH = 1
FIRE = 0
REACTIVITY = 0
CONTACT = 1

SECTION 4 REACTIVITY DATA

Stability: Stable

Conditions to Avoid (Instability): Keep from heat sources, sparks, and open flames.

Materials to Avoid (Incompatibility): Charcoal, halogens, ammonia compounds, oxidizing agents react violently. Corrosive to copper and copper alloys. Damp sulphur will corrode steel.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Oxides of sulphur gasses produced by burning sulphur.

SECTION 5 HEALTH HAZARDS

Sulphur is essentially non-toxic either through ingestion, inhalation, skin or eye contact. Individuals with known allergies to sulfide drugs may also have allergic reactions to elemental sulphur.

← **SIGNS AND SYMPTOMS OF OVEREXPOSURE**

Nose or throat irritation, coughing, chest discomfort, asthma, difficulty breathing, nausea, vomiting, stinging eye irritation, skin irritation, hives.

← **EMERGENCY AND FIRST AID:**

SKIN CONTACT:

No adverse effects. Skin irritation may be aggravated in persons with existing skin lesions. Wash exposed clothing separately before reuse.

First Aid: Wash skin with plenty of mild soap and water.

EYE CONTACT:

Sulphur dust is an eye irritant. Avoid contact with eyes, especially contact wearers. Wear safety glasses. **First Aid:** In case of contact, immediately flush eyes with plenty of water for a minimum of fifteen minutes. Hold upper and lower lids apart to insure rinsing of the entire eye surface and lids. Do not use boric acid to rinse with; sulphur is an acid irritant. FOR SEVERE IRRITATION, GET MEDICAL ATTENTION, preferably an ophthalmologist.

INHALATION:

Prolonged inhalation may cause irritation of the respiratory tract. Breathing of dust may aggravate asthma and other pulmonary diseases. Individuals with known allergies to sulfide drugs may also have allergic reactions to elemental sulphur dust. Maintain adequate ventilation in area where dust is present. Wear dust masks and use NIOSH/MSHA approved dust respirator if airborne concentrations exceed exposure limits. **First Aid:** Move patient to fresh air. Watch for signs of allergic reaction. Use a bronchodilator inhaler if directed by asthma patient. Keep victim warm and quiet. If not breathing, clear airway and start mouth-to-mouth resuscitation. If heart has stopped beating, start cardiopulmonary resuscitation (CPR). GET MEDICAL ATTENTION.

INGESTION:

Ingested sulphur is converted to sulfides in the gastrointestinal tract, and ingestion of 10 to 20 grams has caused irritation of the GI tract and renal injury. Individuals with known allergies to sulfide drugs may also have allergic reactions to elemental sulphur. Swallowing large amounts may cause nausea and vomiting. Do not eat sulfur. **First Aid:** For large amounts ingested, if the victim is conscious and alert, give two or more glasses of water to drink. If available, give one tablespoon of Syrup of Ipecac to induce vomiting. If vomiting does occur, give fluids again. If vomiting has not occurred in twenty minutes, the same dose of Syrup of Ipecac may be repeated one additional time. Alternatively, vomiting may be induced by touching the back of the throat with a finger. Do not give anything by mouth to an unconscious or convulsing person. GET MEDICAL ATTENTION.

EXPOSURE LIMITS:

No exposure limits have been established.

TOXICOLOGY:

Oral LD₅₀ (Rats): >5050 mg/kg body weight

Dermal LD₅₀ (Rats): >2020 mg/kg body weight

Inhalation @ 90% LC₅₀ (Rats): >5.49 mg/L air concentration

Skin Effects (Rabbits): Slightly irritating

Eye Effects (Rabbits): Minimal irritation in non-washed eyes

CARCINOGENICITY, TERATOGENICITY, MUTAGENICITY:

This product does not contain any ingredient designated by NTP, IARC, or OSHA as a probable human carcinogen.

SECTION 6 PRECAUTIONS FOR SAFE HANDLING AND USE

STORAGE:

Containers should be stored in a cool, dry, well-ventilated area. Keep container tightly closed. Store away from flammable materials, sources of heat, flame and sparks. Separate from chlorates, nitrates and other oxidizing agents. Exercise due caution to prevent damage to or leakage from container.

▪ **EXPLOSION HAZARD:**

Avoid any conditions that might tend to create a dust explosion. Be careful not to create dust. Maintain good housekeeping practices to minimize dust build-up and dispersion. Eliminate sources of ignition. Keep away from heat, sparks and flames. Use nonferrous tools to reduce sparking. Sweep or shovel up spilled material using a natural fiber broom and/or aluminum shovel to prevent sparking. Maintain adequate ventilation in all areas.

▪ **SMALL or LARGE SPILLS:**

No flares or flames in area. No smoking. Danger of dust explosion near sparks. Sweep or shovel up spilled material using a natural fiber broom and/or aluminum shovel to prevent sparking. Place sweepings in an appropriate chemical waste container for reclaiming or disposal in an approved facility. Wash spill site after clean up is complete. Wear protective clothing during clean up: safety glasses, rubber gloves, impervious clothing, dust mask or respirator.

SECTION 7 PROTECTIVE EQUIPMENT

WORK AREA:

Protective equipment should be used during the following procedures:

- Manufacture or formulation of this product.
- Repair and maintenance of contaminated equipment.
- Clean up of leaks and spills.
- Any situation that may result in hazardous exposure.

Maintain adequate ventilation and wear a respirator or a dust mask to prevent inhalation. Wear suitable, protective clothing and safety glasses to prevent skin and eye irritation from dust. Maintain a sink, safety shower and eyewash fountain in the work area. Wash skin thoroughly after handling and before eating or smoking. Wash contaminated clothing separately before reuse.

SECTION 8 DOT AND REGULATORY INFORMATION

TSCA:

This product is listed on the TSCA Inventory at CAS Registry Number 7704-34-9.

CERCLA:

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). If this product is accidentally spilled, it is not subject to any special reporting. We recommend that you contact state and local authorities to determine if there are other local reporting requirements.

SARA TITLE III:

Superfund Amendments and Reauthorization Act, Title III, Sections 311/312: Hazard Category: Delayed Health. Section 313: None. Section 302: None.

RCRA:

Resource Conservation and Recovery Act: not subject to reporting because sulfur is not identified as a hazardous waste.

DOT DOMESTIC:

Shipping Name: Sulfur Dispersion

Hazard Class: Not regulated

ID Number: None

Packing Group: Not applicable

Label: None required

Placard: None Required

Hazardous Substance/Rq: Not Applicable

This product is not a Marine Pollutant as defined in 40 CFR part 172.

FOR ADDITIONAL INFORMATION, CONTACT YOUR TECHNICAL SALES REPRESENTATIVE. FOR ADDITIONAL HEALTH & SAFETY INFORMATION, CALL INTERNATIONAL SULPHUR, INC. AT (903) 577-5500.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, INTERNATIONAL SULPHUR, INC. MAKES NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. INTERNATIONAL SULPHUR, INC. ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

DATE OF ISSUE: October 25, 2007

MATERIAL SAFETY DATA SHEET

SECTION I—NAME AND PRODUCT

Manufacturer: CHEMSTAR, Inc.
Emergency Telephone: (702) 565-8995 Contact: Dr. Starr Curtis
Address: P.O. Box 127, Henderson, NV 89015
Trade Name, Common Name: CALCIUM OXIDE

CALCIUM OXIDE, CaO, Lime, Quicklime, Unslaked Lime, CAS #1305-78-8, DOT #1910 NIOSH RTECS# EW3100000
Chemstar High Calcium Lime, Chemstar High Calcium Pebble Lime
Specification: ASTM C5, C602, C911, C977
Chemical Family: Alkaline Earth Oxide

SECTION II—IDENTIFICATION OF INGREDIENTS

Chemical Name	%	Common Name	REG* (Y/N)	CAS No.	OSHA Permissible Exposure Limit	ACGIH TLV/TWA	Carcinogen? (Y/N)
Calcium Oxide	>90	Quicklime	Y	1305-78-8	5 Mg/cu.m.	2 mg/cu.m.	N
Calcium Carbonate	<5	Limestone	N	1317-65-3	—	10 mg/cu.m.	N
Magnesium Oxide	<3	Periclase	Y	1309-38-4	15 mg/cu.m.	10 mg/cu.m.	N
Silicon Dioxide	<1	Quartz	Y	14808-60-7	0.1 mg/cu.m.	0.1 mg/cu.m.	Y
Other (Fe ₂ O ₃ , Al ₂ O ₃)	<1	—	N	—	—	—	N

Purity depends on the limestone raw material and manufacturing, handling, and storage techniques. Hydrated lime may form upon exposure to air or moisture. Chemstar strives to maintain high purity and production quality. Calcium oxide is NOT listed by NTP, IARC, or OSHA as containing carcinogens; however, it contains detectable amounts of chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION III—PHYSICAL AND CHEMICAL CHARACTERISTICS

Appearance and Odor: White solid; Odorless. Chemstar High Calcium Lime is available as lump, pebble, granules, or crushed form. Screened material is available in a range of particle sizes.

Melting Point:	4676 F/2580 C	Particle Specific Gravity:	3.2-3.4g/cc	Bulk Density:	55-60lbs/cu.ft.
Boiling Point:	5162 F/2850 C	Water Solubility:	Slight	Aqueous Solution Behavior:	
Vap. Pressure:	N/A	Temp. Solubility	Solubility	pH (sat'd sol'n)	
Vapor Density:	N/A	0 C	1.40 g CaO/l	1.85 g Ca(OH) ₂ /l	13.42
Evaporation Rate:	N/A	25 C	1.21	1.59	12.44
%Volatile by Vol:	N/A	50 C	0.97	1.28	11.71
Solubility in Alcohol:	NAIF**	100 C	0.54	0.71	—

Solubility in other solvents: Calcium Oxide reacts with acids, forming calcium salts which may be soluble.

SECTION IV—FIRE AND EXPLOSION HAZARD DATA

Special Fire Fighting Procedures: In large amounts, lime in contact with water, steam or acids, will generate sufficient heat to ignite wood and other materials. In small amounts, the presence of lime in a fire does not hinder the use of any standard extinguishing medium. Wear self-contained breathing apparatus approved by NIOSH. Protect eyes from dust.

Flashpoint: Not Flammable Flammable Limits: N/A Extinguishing Media: Not Flammable Explosion Potential: None

SECTION V—HEALTH, FIRST AID AND MEDICAL DATA

Threshold Limit Value(TLV): 2 mg/cu.m. Calcium oxide is a strongly alkaline material. Contact with skin and eyes will cause irritation and possible severe corrosion damage. Inhalation of dust may cause coughing, sneezing, or inflammation of the respiratory passages. While short term exposure and irritation are generally without permanent effects, untreated contact and irritation can cause serious chemical and thermal burns and permanent scarring. Prevention of contact and exposure under good working conditions is much preferred to first aid after injury. See Section VII below.

Calcium oxide is NOT listed by NTP, IARC, or OSHA as containing carcinogens; however, it contains detectable amounts of chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

FIRST AID

Inhalation: Remove from exposure to dust and get prompt medical help.
Eye Contact: Wash eyes immediately with running water for 15 minutes, including under eyelids. Get prompt medical attention!
Skin Contact: Wash exposure area with large amounts of water. Remove and wash contaminated clothing.
Ingestion: Get medical attention. Give large amounts of water to dilute, but do not induce vomiting.

*Regulated on lists: OSHA 29CFR 1910, subpart Z; ACGIH, HHS/NTP & IARC. **NAIF—No Applicable Information Found

SECTION VI—CORROSIVITY AND REACTIVITY DATA

Stability:	UNSTABLE Hazardous polymerization will NOT occur.
Incompatibilities:	Calcium oxide is incompatible with water, steam, acids, chemicals with water or crystallization, boric oxide, fluorine, and many organic materials. Lime is stable in sealed containers at normal temperatures. Fluorine will attack calcium oxide, evolving much heat and some light.
Decomposition Products:	When exposed to air, this strongly alkaline compound will absorb and react with moisture and carbon dioxide. This decomposition reaction produces calcium hydroxide and calcium carbonate and results in a limited shelf life. Calcium salts are normal reaction products with other materials.
Conditions to be avoided:	Calcium oxide reacts with water to form calcium hydroxide with release of much heat. (Heat of hydration = 490 BTU/lb.) Chemstar High Calcium Lime is generally HIGHLY REACTIVE, commonly yielding a 50 C temperature rise in 3 minutes according to ASTM C110-84, 10. Contact between large amounts of lime with smaller amounts of water releases much heat and possibly steam. Lime will swell and generate heat when moistened and could burst containers.

SECTION VII - STORAGE, HANDLING AND USE PROCEDURES

Normal Storage and Handling:	Dry area, out of weather and flood danger.
Normal Use:	Standard equipment for quicklime use. Make adequate provision for dust-free operations and for venting steam and dissipating heat generated upon slaking.
Steps to be taken in Case of Leaks or Spills	Those involved in clean up must protect against skin contact with lime and inhalation of dust or mist. See Section VIII. Keep spilled material away from organic materials and water. Carefully pick up the solid with a minimum of dusting and collect in metal containers with covers for disposal. The small amounts of residue after shoveling and sweeping can be flushed to the drain, using plenty of water.
Waste Disposal Method:	Carefully add waste lime to an excess of water, dilute, and flush to the sewer. Large amounts may require neutralization by acid. Follow Federal, State and local regulations. Waste lime can be used for neutralizing waste acids or drying and stabilizing clay soils.

SECTION VIII - PERSONAL PROTECTION INFORMATION

Respiratory Protection:	NIOSH approved dust filter respirator in dusty conditions. In absence of dust, mechanical exhaust is adequate.
Eye Protection:	Approved tight-fitting safety goggles.
Protective Gloves:	Clean, dry rubber gloves.
Clothing:	Clean, body-covering protective clothing, such as long-sleeve shirt with buttoned collar; long pants extending over tops of work shoes.
Ventilation:	Provide general ventilation and local exhaust ventilation to meet TLV requirements for lime dust.
Other Equipment:	An eyewash station should be readily available near the work area.

SECTION IX - SPECIAL PRECAUTIONS

Store materials in sealed containers in a dry place. Avoid contact with water, acids and organic materials. Contact with water will release much heat and steam. Provide for steam venting and dissipation of heat when mixing lime with water. Exposure to air lowers the available calcium oxide reactivity over time.

SPECIAL REFERENCE: LIME HANDLING, APPLICATION, AND STORAGE, Nat. Lime Assoc. Bull. 213, 4th ed., 1982.

CHEMSTAR, Inc.

also produces the following quality products:

Type S Hydrated Lime	$\text{Ca}(\text{OH})_2 \cdot \text{Mg}(\text{OH})_2$
Dolomitic Quicklime,	$\text{CaO} \cdot \text{MgO}$
Type N Hydrated Lime,	$\text{Ca}(\text{OH})_2$

Montartek, a portland cement-lime mortar mix

Rev. 12/01/88 HSC

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072



IDENTITY Type S Dolomitic Hydrated Lime
 $\text{Ca}(\text{OH})_2 \cdot \text{Mg}(\text{OH})_2$

Note: Blank spaces are not permitted. If any item is not applicable, or no
information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name

Chemical Lime Company

Address (Number, Street, City, State, and ZIP Code)

3724 Hulen Street

Fort Worth, Texas 76107

Emergency Telephone Number

Chemtrec 800-424-9300

Telephone Number for Information

817-732-8164

Date Prepared

16-Nov-99

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Calcium hydroxide 1305-62-0 Hydrated lime	5 mg/m ³	5 mg/m ³	7340 mg/kg	>50%
Magnesium hydroxide 1309-42-8 Brucite	N.A.	N.A.		>35%
Magnesium oxide 1309-48-4 Periclase	10 mg/m ³	10 mg/m ³	6 mg/m ³	<5%
Calcium carbonate 1317-65-3 Limestone	15 mg/m ³	10 mg/m ³	6450 mg/kg	<3%
Silicon dioxide 14808-60-7 Quartz	0.1 mg/m ³	0.1 mg/m ³	4 mg/m ³	<2%

Section III - Physical/Chemical Characteristics

Boiling Point	2850 °C	Melting Point	decomp. 580 °C	Specific Gravity (H ₂ O = 1)	2.4 - 2.6 g/cc
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Vapor Pressure (mm Hg)	N.A.	Vapor Density	N.A.	Evaporation Rate	N.A.
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Solubility in Water

Slightly soluble in water

pH = 12.4 @ 25°C

Appearance and Odor

White or gray powder, odorless

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
Not applicable	Not applicable	N.A.	N.A.

Extinguishing Media

Not Combustible -- Use extinguishing agent suitable for surrounding fire

Special Firefighting Procedures

Avoid skin contact or inhalation of dust

Unusual Fire and Explosion Hazards

None

Section V - Reactivity Data

Stability	Conditions to Avoid (stability - related)
Stable	Material is stable

Incompatibility (Materials to Avoid)

Acids: Reacts vigorously and produces heat. Maleic Anhydride: May react explosively.

Nitro Organic Compounds: May react to form explosive salts. Phosphorous: May form
flammable products when heated. Aluminum: May react to form hydrogen gas.

Hazardous Decomposition or Byproducts

None

Hazardous Polymerization

Conditions to Avoid (polymerization - related)

Will Not Occur

None

Section VI - Health Hazard Data

Route(s) of Entry	Eyes?	Inhalation?	Skin?	Ingestion?
		Yes		Yes

Health Hazards (Acute and Chronic)

Mild to moderate corrosive. Avoid skin and eye contact as irritation will occur. Inhalation can cause coughing, sneezing, or breathing problems.

Carcinogenicity	NTP?	IARC Monographs?	OSHA Regulated?
	SiO2	SiO2	

Respirable crystalline silica from occupational sources is classified by IARC as a Group I carcinogen.

Signs and Symptoms of Exposure

Skin or eye irritation; coughing or breathing problems.

Medical Conditions Generally Aggravated by Exposure

Respiratory problems, asthma, dermatitis or skin or eye sensitivity.

Emergency and First Aid Procedure

Flush contaminated area with excess water. If eye contact, rinse eye with warm water for 30 minutes, and seek medical attention immediately.

California Proposition 65

Silica is on the Governor's Proposition 65 list. Components used in this product may contain trace amounts of inherent naturally occurring elements (such as, but not limited to arsenic, cadmium) that are on the Governor's Proposition 65 list.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Protect skin and eyes from contact and avoid inhalation of dust. If material is dry pick up and keep away from acids or organic materials. Place in steel drums. If wet add excess water to remove heat and place in steel drums.

Waste Disposal Method

Carefully add water and flush to sewer.
Consult local, state, or federal regulations.

Precautions to be Taken in Handling and Storage

Store in tightly closed containers. Keep dry and away from acids or other incompatible substances. Do not store or ship in aluminum containers.

Other Precautions

Avoid eye contact and breathing dust.

NFPA Rating	HEALTH: 1	FLAMMABILITY: 0	REACTIVITY: 0
HMIS Rating	HEALTH: 1	FLAMMABILITY: 0	REACTIVITY: 0

Section VIII - Control Measures

Respiratory Protection (Specify Type)

Dust masks meeting the NIOSH N95 rating are sufficient for casual exposure. (42 CFR 84)

Ventilation	Local Exhaust	Special
	Vent to dust collector	
	Mechanical (General)	Other
	Vent to meet TLV requirements	

Protective Gloves

Dry cloth or leather gloves

Other Protective Clothing or Equipment

Full clothing to cover arms and legs, safety glasses or face shield.

Work/Hygienic Practices

Eye wash and shower station should be readily available.

References: Sax, N.I. & R.J. Lewis Sr. (1989) "Dangerous Properties of Industrial Materials", New York: Van Nostrand Reinhold Co. Ltd.
Lewis, R.J. (1997) "Hazardous Chemicals Desk Reference", New York: Van Nostrand Reinhold Co. Ltd. djn phd

**THATCHER COMPANY MATERIAL SAFETY DATA SHEET****PRODUCT: AMMONIUM HYDROXIDE SOLUTION****Page 1 of 3**

MSDS Date: 8/24/2005 9:25 AM

Emergency Contact: 1-800-424-9300

SECTION I**PRODUCT NAME:** Ammonium Hydroxide Solution (15 - 25% as NH₃)**CHEMICAL NAME:** Ammonium Hydroxide**CHEMICAL FAMILY:** Inorganic Base**SYNONYMS:** Aqua Ammonia**FORMULA:** NH₄OH**DOT SHIPPING INFORMATION:** Ammonia Solutions, 8,
UN 2672; PG III
RQ = 1000 lbs**SECTION II - HAZARDOUS INGREDIENTS**

This material contains no ingredients which are known by Thatcher Company to be hazardous unless listed below.

HAZARDOUS MATERIAL	CAS NUMBER	w/w %	EXPOSURE LIMITS IN AIR
Ammonium Hydroxide (15 - 25% as NH ₃)	1336-21-6	31 - 52	TLV = 25 ppm (TWA)

The specific identity of some ingredients may be withheld for confidential business purposes. However, all known potential health effects from exposure to these ingredients are being addressed.

Ammonium Hydroxide is subject to the reporting requirements of EPCRA Section 101(14) (CERCLA; Pub. L. 96-510)

SECTION III - HEALTH HAZARD DATA**NFPA HAZARDOUS RATING:** Health = 2 Flammability = 1 Reactivity = 0**Carcinogenic Listing:**

NTP: No ingredients listed in this section.

IARC MONOGRAPHS: No ingredients listed in this section.

OSHA 29 CFR 1910: No ingredients listed in this section.

ENTRY ROUTES & EFFECTS OF OVEREXPOSURE:**Contact:** Can be extremely irritating to eyes, and skin, causing possible burns and serious damage to eyes.**Inhalation:** Vapor causes extensive irritation and/or burns to respiratory tract.**Ingestion:** Harmful or fatal if swallowed, resulting in severe burns and pain to gastrointestinal system.



THATCHER COMPANY MATERIAL SAFETY DATA SHEET
PRODUCT: AMMONIUM HYDROXIDE SOLUTION
Page 2 of 3

STATEMENT OF PRACTICAL TREATMENT:

- Contact:** Flush exposed area thoroughly with cool water. For eyes, flush for at least 15 minutes. GET PROMPT MEDICAL ATTENTION!
- Inhalation:** Immediately remove to fresh air. If breathing is difficult, administer oxygen. Consult a physician immediately.
- Ingestion:** If conscious, give several glasses of water or milk followed by dilute vinegar or citrus juice. DO NOT induce vomiting. Call a physician or local Poison Control Center at once!

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT: nonflammable

FLAMMABLE LIMITS: Lel:N/A Uel: N/A

EXTINGUISHING MEDIA: Use any (Water, Chemical, CO₂, or Foam, etc.)

SPECIAL FIRE-FIGHTING PROCEDURES:

Firefighters should enter heavily-concentrated areas with self-contained breathing apparatus and full safety gear.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Ammonium hydroxide releases toxic ammonia gas when heated; protective gear should be worn. Rapid addition to concentrated mineral acids could create explosive conditions.

SECTION V - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

Use a respirator approved for ammonia, if the concentration in the air is above the ceiling limit.

VENTILATION:

Use ventilation to maintain TLV below 25 ppm. Mechanical ventilation is recommended.

EYE PROTECTION: Chemical splash goggles.

SKIN PROTECTION: Rubber gloves, rubber boots.

OTHER PROTECTIVE EQUIPMENT:

As needed to prevent contact with eyes and skin and to minimize exposure to vapor.

SECTION VI - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

Store in a cool place, away from heat. When opening the container, loosen cap or bung carefully to release any pressure that may have built up. Do not breathe the vapor.



THATCHER COMPANY MATERIAL SAFETY DATA SHEET
PRODUCT: AMMONIUM HYDROXIDE SOLUTION
Page 3 of 3

SECTION VII - PHYSICAL DATA

BOILING POINT: 212 F*
*(loses ammonia gas when heated)

SPECIFIC GRAVITY: 0.90 – 0.94

VAPOR PRESSURE (mm Hg): Unknown

% VOLATILE, BY VOLUME: 100 %

VAPOR DENSITY (air = 1): Unknown

EVAPORATION RATE: N/A

pH: >14 **APPEARANCE AND ODOR:** Clear, water-white liquid with a sharp, pungent ammonia odor.

SECTION VIII - REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS OR MATERIALS TO AVOID:

Heat causes the release of ammonia gas. Do not mix with mineral acids; a large amount of heat is released through ensuing violent reaction.

HAZARDOUS DECOMPOSITION PRODUCTS:

Ammonia gas.

SECTION IX - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL SPILLS OR LEAKS:

Wear proper safety equipment; ventilate area thoroughly. Small spills can be neutralized with vinegar (dilute acetic acid) and absorbed with diatomaceous earth. Large spills should be diked and pumped into polyethylene drums. Neutralize any residual liquid and absorb into diatomaceous earth. Shovel the diatomaceous earth into polyethylene drums. After the removal of the material is complete, flush the contaminated area thoroughly with water and drain to the sewer, if permitted by local regulation agencies.

WASTE DISPOSAL METHOD:

Waste aqua ammonia is an EPA Characteristic Waste (DOO2, DOO3) due to corrosivity and reactivity. Contact an EPA approved waste disposal establishment or local environmental agency for approved disposal of this material. Comply with all local, state and federal regulations.

ACGIH = American Conference of Governmental Industrial Hygienists

CL = Ceiling Level

IARC = International Agency for Research on Cancer: Monographs

OSHA = Occupational Safety and Health Administration

N/A = Not Applicable

NTP = National Toxicology Program: Annual Report on Carcinogens

PEL = Permissible Exposure Level (OSHA)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average over 8 Hours

This information is, to the best of our knowledge, accurate but may not be complete. THATCHER COMPANY furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness, or reliability.

COMPANY IDENTITY: Univar USA Inc.
PRODUCT IDENTITY: SULFURIC ACID 77 - 100%

DATE: 07/29/11
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SAFETY DATA SHEET

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System.

THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)

IMPORTANT: Read this SDS before handling & disposing of this product.
Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: SULFURIC ACID 77 - 100%
SDS NUMBER: CDS1741
NEW MSDS DATE: 07/29/2011
COMPANY IDENTITY: Univar USA Inc.
COMPANY ADDRESS: 17425 NE Union Hill Road
COMPANY CITY: Redmond, WA 98052
COMPANY PHONE: 1-425-889-3400
EMERGENCY PHONES: CHEMTREC: 1-800-424-9300 (USA)
CANUTEC: 1-613-996-6666 (CANADA)

SECTION 2. HAZARDS IDENTIFICATION

DANGER!!

EXPOSURE PREVENTION: AVOID ALL CONTACT!
PREVENT DISPERSION OF MISTS OR DUST!



RISK STATEMENTS:
R35 Causes severe burns.

SAFETY STATEMENTS:
S1/2 Keep locked up and out of the reach of children.
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S30 Never add water to this product.
S45 In case of accident, or if you feel unwell, seek medical advice immediately. (Show the label where possible).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	WT %
Sulfuric Acid*	7664-93-9	231-639-5	85-95
Water	7732-18-5	231-791-2	5-15

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

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SECTION 4. FIRST AID MEASURES

EYE CONTACT:

If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. "Roll" eyes to expose more surface. Minimum flushing is for 15 minutes. Seek immediate medical attention.

SKIN CONTACT:

If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

INHALATION:

If mists or sprays of this product are inhaled, remove to fresh air. If necessary, use artificial respiration to support vital functions. Seek immediately medical attention.

SWALLOWING:

If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give water to drink and seek medical attention. Do NOT give liquids to someone who is unconscious, having convulsions, or unable to swallow.

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of label and SDS to physician or health professional with victim.

SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSION PREVENTIVE MEASURES

Not Applicable.

EXTINGUISHING MEDIA

Expect violent reaction with water. For small fires use dry chemical, carbon dioxide or halon. For large fires, flood fire area with water from a distance. Do not get solid stream of water on spilled material.

SPECIAL FIRE FIGHTING PROCEDURES

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used.
Do not enter confined fire-space without full bunker gear.
(Helmet with face shield, bunker coats, gloves & rubber boots).
Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES

Noncombustible.

Reacts with most metals producing hydrogen which is extremely flammable & may explode. Applying to hot surfaces requires special precautions. Closed containers may explode if exposed to extreme heat.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

PERSONAL PROTECTIVE EQUIPMENT

The proper personal protective equipment for incidental releases (such as: 1 Liter of the product released in a well-ventilated area), use impermeable gloves (triple-gloves (rubber gloves and nitrile gloves, over latex gloves), goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, specific for the material handled, chemically resistant suit and boots, and hard hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with latest OSHA and/or ANSI recommendations.

ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

CONTAINMENT AND CLEAN-UP MEASURES:

Absorb spilled liquid with polypads or other suitable absorbent materials. If necessary, neutralize using suitable buffering material, (acid with soda ash or base with phosphoric acid), and test area with litmus paper to confirm neutralization. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residue in suitable containers. dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13 - Disposal Considerations).

SECTION 7. HANDLING AND STORAGE

HANDLING

Use only with adequate ventilation. Do not get in eyes, on skin or clothing. Wear OSHA Standard full face shield. Consult Safety Equipment Supplier. Wear gloves, apron & footwear impervious to this material. Wash clothing before reuse. NEVER pour water into this substance. When dissolving or diluting, always add it slowly to the water. To minimize static discharge when transferring, ensure electrical continuity by bonding and grounding all equipment. Use an inlet line diameter of at least 3.5 inches (8.9 centimeters) with a maximum flow rate of 1 meter/second.

STORAGE

Keep separated from strong oxidants, strong bases, combustible & reducing substances, metals, food & feedstuffs, incompatible materials. May be stored in stainless steel containers. See: Section 10, <Materials to Avoid>. Do not store above 49 C/120 F. Keep container tightly closed & upright when not in use to prevent leakage. Reacts with most metals producing hydrogen which is extremely flammable & may explode. Wear full face shield, gloves & full protective clothing when opening or handling. When empty, drain completely, replace bungs securely.

NONBULK: CONTAINERS:

Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Empty containers should be handled with care. Never store food, feed, or drinking water in containers which held this product.

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SECTION 7. HANDLING AND STORAGE (CONTINUED)

BULK CONTAINERS:

All tanks and pipelines which contain this material must be labeled. Perform routine maintenance on tanks or pipelines which contain this product. Report all leaks immediately to the proper personnel.

TANK CAR SHIPMENTS:

Tank cars carrying this product should be loaded and unloaded in strict accordance with tank-car manufacturer's recommendation and all established on-site safety procedures. Appropriate personal protective equipment must be used (see Section 8, Engineering Controls and Personal Protective Equipment.). All loading and unloading equipment must be inspected, prior to each use. Loading and unloading operations must be attended, at all times. Tank cars must be level, brakes must be set or wheels must be locked or blocked prior to loading or unloading. Tank car (for loading) or storage tanks (for unloading) must be verified to be correct for receiving this product and be properly prepared, prior to starting the transfer operations. Hoses must be verified to be in the correct positions, before starting transfer operations. A sample (if required) must be taken and verified (if required) prior to starting transfer operations. All lines must be blown-down and purged before disconnecting them from the tank car or vessel.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Collect all rinsates and dispose of according to applicable Federal, State, or local procedures.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
Sulfuric Acid*	7664-93-9	231-639-5	None Known	None Known
Water	7732-18-5	231-791-2	None Known	None Known

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

RESPIRATORY EXPOSURE CONTROLS

Maintain airborne contaminant concentrations below exposure limits given above. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, European Standard EN 149, or applicable State regulations. If adequate ventilation is not available or there is potential for airborne exposure above the exposure limits, a respirator may be worn up to the respirator exposure limitations, check with respirator equipment manufacturer's recommendations/limitations. For a higher level of protection, use positive pressure supplied air respiration protection or Self Contained Breathing Apparatus or if oxygen levels are below 19.5% or are unknown.

EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS

Positive pressure, full-face piece Self Contained Breathing Apparatus; or positive pressure, full-face piece Self Contained Breathing Apparatus with an auxilliary positive pressure Self Contained Breathing Apparatus.

VENTILATION

LOCAL EXHAUST:	Necessary	MECHANICAL (GENERAL):	Necessary
SPECIAL:	None	OTHER:	None

Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

EYE PROTECTION:

Splash goggles or safety glasses. Face-shields are recommended when the operation can generate splashes, sprays or mists.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

HAND PROTECTION:

Wear appropriate impervious gloves for routine industrial use. Use impervious gloves for spill response, as stated in Section 6 of this SDS (Accidental Release Measures).

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

BODY PROTECTION:

Use body protection appropriate for task. Cover-all, rubber aprons, or chemical protective clothing made from impervious materials are generally acceptable, depending on the task.

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash after each workshift & before eating, smoking or using the toilet. Promptly remove contaminated clothing. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE:	Oily Liquid, Water-White
ODOR:	None
ODOR THRESHOLD:	Not Available
pH (Neutrality):	0.0
MELTING POINT/FREEZING POINT:	-11 to -29 C / +12 to -20 F
BOILING RANGE (IBP,50%,Dry Point):	193 to 276 C / 380 to 529 F
FLASH POINT (TEST METHOD):	Not Applicable
EVAPORATION RATE (n-BUTYL ACETATE=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Non-Combustible
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	Not Applicable
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg)@20 C	17.5
VAPOR DENSITY (air=1):	Not Applicable
GRAVITY @ 68/68F / 20/20C:	
SPECIFIC GRAVITY (Water=1):	1.70 to 1.84
POUNDS/GALLON:	14.2 to 15.3
WATER SOLUBILITY:	Complete
PARTITION COEFFICIENT (n-Octane/Water):	Not Available
AUTO IGNITION TEMPERATURE:	Not Applicable
DECOMPOSITION TEMPERATURE:	Not Available

SECTION 10. STABILITY & REACTIVITY

STABILITY

Stable but Reacts with most metals producing hydrogen which is extremely flammable & may explode.

CONDITIONS TO AVOID

Avoid alkalis. When diluting, always add acid to diluent. DON'T add diluent to acid.

MATERIALS TO AVOID

The substance is a strong acid, reacts violently with bases and is corrosive. Upon heating, irritating and toxic fumes are formed including sulfur oxides. The substance is a strong oxidant & reacts violently with combustible & reducing materials. Corrosive to most common metals forming flammable/explosive gas (hydrogen). Sulfuric acid reacts violently with water & organic materials with much heat. Isolate from organics, chlorates, carbides, fulminates, picrates, metals. Fire risk on contact with organic materials and chemicals such as nitrates, carbides, and chlorates.

HAZARDOUS DECOMPOSITION PRODUCTS

Sulfur Oxides.

HAZARDOUS POLYMERIZATION

Will not occur.

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SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE HAZARDS

EYE & SKIN CONTACT:

Severe burns to skin, defatting, dermatitis.
Severe burns to eyes, redness, tearing, blurred vision.
Liquid can cause severe skin & eye burns. Wash thoroughly after handling.

INHALATION:

Severe respiratory tract irritation may occur. Vapor harmful.

SWALLOWING:

Harmful or fatal if swallowed.

SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED:

Persons with skin conditions should avoid use.

CHRONIC HAZARDS

CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:

This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

IRRITANCY OF PRODUCT: This product is irritating to contaminated tissue.

SENSITIZATION TO THE PRODUCT: No component of this product is known to be a sensitizer.

MUTAGENICITY: This product is not reported to produce mutagenic effects in humans.

EMBRYOTOXICITY: This product is not reported to produce embryotoxic effects in humans.

TERATOGENICITY: This product is not reported to produce teratogenic effects in humans.

REPRODUCTIVE TOXICITY: This product is not reported to cause reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical which causes damage to a developing embryo (such as: within the eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with the reproductive process.

MAMMALIAN TOXICITY INFORMATION

Oral LD50 (Rats):	2140 mg/kg
Dermal LD50 (Rabbit):	Not Available
LC50 (Inhalation, Rats):	510 mg/m3 (4 hour exposure)
Skin effects (Rabbit):	Severe irritation
Eye effects (Rabbit):	Severe irritation

LD (adult human): between 5 ml and 15 ml (concentrated sulfuric acid)

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SECTION 12. ECOLOGICAL INFORMATION

AQUATIC ANIMAL INFORMATION:

No aquatic environmental information is available on this product.
The substance is harmful to aquatic organisms.

MOBILITY IN SOIL

Mobility of this material has not been determined.

DEGRADABILITY

This product is completely biodegradable.

ACCUMULATION

Bioaccumulation of this product has not been determined.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options.
Recycle / dispose of observing national, regional, state, provincial and local
health, safety & pollution laws. If in doubt, contact appropriate agencies.

SECTION 14. TRANSPORT INFORMATION

DOT SHIPPING NAME: UN1830, Sulfuric acid, 8, PG-II
DRUM LABEL: (CORROSIVE)
IATA / ICAO: UN1830, Sulfuric acid, 8, PG-II
IMO / IMDG: UN1830, Sulfuric acid, 8, PG-II
EMERGENCY RESPONSE GUIDEBOOK NUMBER: 137

SECTION 15. REGULATORY INFORMATION

EPA REGULATION:

SARA SECTION 311/312 HAZARDS: Acute Health



All components of this product are on the TSCA list.

SARA Title III Section 313 Supplier Notification

This product contains the indicated <*> toxic chemicals subject to the
reporting requirements of Section 313 of the Emergency Planning & Community
Right-To-Know Act of 1986 & of 40 CFR 372. This information must be
included in all MSDSs that are copied and distributed for this material.

SARA TITLE III INGREDIENTS

Sulfuric Acid

CAS#	EINECS#	WT%	(REG.SECTION)	RQ(LBS)
7664-93-9	231-639-5	85-95	(302,311,312,313)	1000

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SECTION 15. REGULATORY INFORMATION (CONTINUED)

> 1099 LB / 499 KG OF THIS PRODUCT IN 1 CONTAINER EXCEEDS THE "RQ" OF SULFURIC ACID.

Any release equal to or exceeding the RQ must be reported to the National Response Center (800-424-8802) and appropriate state and local regulatory agencies as described in 40 CFR 302.6 and 40 CFR 355.40 respectively. Failure to report may result in substantial civil and criminal penalties. State & local regulations may be more restrictive than federal regulations.

SARA Title III Section 302 (Extremely Hazardous Substance List) : Sulfuric Acid.

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65: This product contains no chemicals known to the State of California to cause cancer & reproductive toxicity.

INTERNATIONAL REGULATIONS

The components of this product are listed on the chemical inventories of the following countries:

Australia (AICS), Canada (DSL, NDSL), China (IECSC), Europe (EINECS, ELINCS), Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIoC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

D2B: Irritating to skin / eyes.

E: Corrosive Material.

SECTION 16. OTHER INFORMATION

HAZARD RATINGS:

HEALTH (NFPA): 3, HEALTH (HMIS): 3, FLAMMABILITY: 0, REACTIVITY: 2
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

EMPLOYEE TRAINING

See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.